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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ARUN KWANGIL IYENGAR

Appeal 2009-003338
Application 10/629,284
Technology Center 2100

Decided: May 24, 2010

Before JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and
THU A. DANG, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-28, which are all the claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Representative Claim

16. A method of maintaining a plurality of objects in a storage transfer unit, comprising the steps of:
- identifying an object position in the storage transfer unit by an object offset in the storage transfer unit;
 - in response to a request to one of access and update a storage transfer unit, copying the storage transfer unit so that different objects are copied into different buffers;
 - performing at least one update to at least one object in the storage transfer unit by modifying at least one buffer; and
 - after the at least one update has occurred, updating the storage transfer unit from the at least one buffer.

Prior Art

Cabrera	5,802,599	Sep. 1, 1998
Rabii	2002/0032691 A1	Mar. 14, 2002
Garthwaite	2004/0172507 A1	Sep. 2, 2004
Chen	6,804,761 B1	Oct. 12, 2004
Mattis	6,915,307 B1	Jul. 5, 2005

Examiner's Rejections

Claims 1-3, 9, 11, 12, 14-16, and 19-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabii and Mattis.

Claims 4-8 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabii, Mattis, and Chen.

Claims 13 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabii, Mattis, and Cabrera.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabii, Mattis, Cabrera, and Garthwaite.

ANALYSIS

With respect to claim 16, Appellant submits that neither Rabbi nor Mattis, nor their combination, teach or suggest the “storage transfer units” and “object offsets” as claimed. App. Br. 12.

A “storage transfer unit” may be a sector (App. Br. 3, top). A “sector” is defined as a disk sector, but more broadly as “any fixed unit of transfer between two different storage media” (Spec. 6: 9-11). Further, according to Appellant, the term “object” refers to any form of data. *Id.* at ll. 11-12. An “object offset” refers to the position of an object within a sector. For example, if an object is the 10th object in sector “x,” then its object offset is 10. *Id.* at 9: 25-27.

For the “storage transfer units,” the rejection submits that Rabii discloses segments (Fig. 5) that correspond to “storage transfer units” as claimed. *See Ans. 3.*

The segments (Rabii Fig. 5) are part of an individual disk partition (¶ [0083]). Objects are stored whole and contiguously in a segment of the disk partition (¶ [0084]). Rabii discloses that the segments are designed to be larger than any of the objects to be stored therein, and are each of a fixed amount of memory storage (e.g., 72 megabytes) (¶ [0039]). If we assume that the claimed “storage transfer units” are taught by the “segments” as described by Rabii, the reference teaches an “object offset,” as claimed. For example, object 4 (230-4) (Fig. 5) is the 4th object in segment 2 (220-2), and thus has an “object offset” of 4.

However, we find no teaching or suggestion in Rabii that a segment corresponds to or teaches a “storage transfer unit” as claimed, in view of the definition for the term set forth in Appellant’s Specification, broad though that definition may be. Although the segment size is fixed, the rejection does not show where one or more segments constitute a unit of transfer between two different storage media (e.g., between the disk and other memory). We do not find any relevant discussion of the physical transfer of the data in the segments being provided from or to the disk, other than that in-memory versions of the on-disk data objects may be held in buffers (e.g., ¶ [0104]; Fig. 10) and that the objects are stored contiguously in a segment (¶ [0084]), such that most data objects can be read from the disk in a single contiguous operation (¶ [0091]). The reference appears to discuss the reading and writing of data objects within a segment (e.g., ¶ [0086]), rather than the reading and writing of disk segments from and to other memory.

Although the Examiner suggests (Ans. 11-12) that several different types of data transfer exchange blocks of data that meet the definition of “storage transfer unit,” the rejection does not show that the “segments” that hold the data objects as described by Rabii constitute such blocks of data.

The allocation of burdens requires that the USPTO produce the factual basis for its rejection of an application under 35 U.S.C. §§ 102 and 103. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967)). Because the evidentiary basis for the rejection of claim 16 is lacking, we do not sustain the rejection of claim 16 or the claims that depend from the claim. Since all the other independent claims on appeal (1, 25, 26, 27, and 28) operate on storage transfer units

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containing objects, which have not been shown as disclosed or suggested in the references, we cannot sustain the rejection of any claim on appeal.

DECISION

The rejections of claims 1-28 under 35 U.S.C. § 103(a) are reversed.

REVERSED

msc

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